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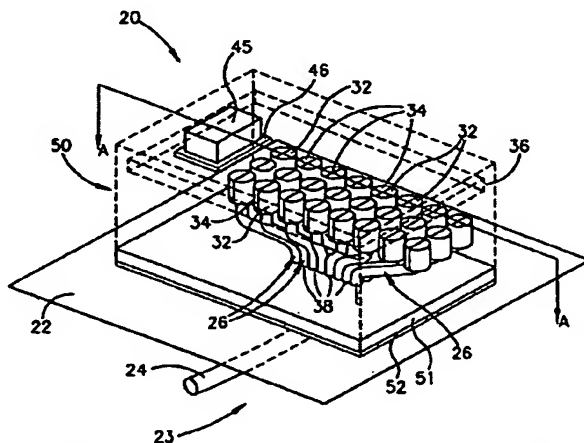
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(54) Title: WEARABLE GLUCOMETER



(57) **Abstract:** Apparatus for assaying an analyte in blood in a blood vessel below a patient's skin comprising: at least one light source controllable to transmit light into tissue below the skin through at least one first region on the skin; at least one light detector that receives a portion of the transmitted light that reaches at least one second region on the skin after propagating through the blood vessel and generates signals responsive to the received light; and a controller; wherein the controller controls the at least one light source to transmit light at least one wavelength that interacts with blood and at least one wavelength that interacts with the analyte and uses the signals responsive to the light that interacts with the blood to determine a location for the blood vessel and the determined location and signals responsive to the light to assay the analyte.

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